Listing of Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Previously Presented) A system for clinical trial simulation, comprising:

an interface having a fixed form module and a free form module, the interface configured to receive information that describes a trial protocol comprising a plurality of schedules for a clinical trial simulation;

a translator having a protocol parser and a code generator, the protocol parser configured to parse the trial protocol, the code generator configured to generate source code in a general purpose programming language;

a compiler having a code parser and a machine code generator, the compiler configured to compile the generated source code into an executable program comprising a plurality of programmable state machines, each state machine corresponding to one of the plurality of schedules; and

a controller communicatively coupled with the interface, the translator, and the compiler, the controller configured to run the executable program including the plurality of programmable state machines, according to a time queue.

2. (Previously Presented) The system of claim 1, wherein the fixed form module is configured to receive trial protocol information conforming to a structured format.

3. (Original) The system of claim 2, wherein the free form module is configured to receive trial protocol information conforming to a trial design language.

4. (Canceled)

5. (Previously Presented) The system of claim 1, wherein the plurality of schedules comprises a dosing schedule.

6. (Previously Presented) The system of claim 1, wherein the plurality of schedules comprises an observation schedule.

7-8. (Canceled)

9. (Previously Presented) A method for clinical trial simulation, comprising:

receiving trial protocol information that describes a clinical trial simulation;

arranging the trial protocol information into a plurality of schedules;

translating the plurality of schedules into a general purpose, high level programming language;

compiling the translated plurality of schedules into an executable program comprising a plurality of state machines, each state machine corresponding to one of the plurality of schedules; and

executing the program including the plurality of state machines, according to a time queue as part of the clinical trial simulation.

10. (Original) The method of claim 9, wherein the receiving step comprises:

receiving trial protocol information that conforms to a structured format; and

receiving trial protocol information that conforms to a trial design language.

11. (Original) The method of claim 9, wherein the plurality of schedules comprises a dosing schedule.

12. (Original) The method of claim 9, wherein the plurality of schedules comprises an observation schedule.

13. (Canceled)

14. (Previously Presented) A computer readable medium having stored thereon one or more sequences of instructions for causing one or more microprocessors to perform the steps for simulating a clinical trial, the steps comprising:

receiving trial protocol information that describes a clinical trial simulation;

arranging the trial protocol information into a plurality of schedules;

translating the plurality of schedules into a general purpose, high level programming language;

compiling the translated plurality of schedules into an executable program comprising a plurality of state machines, each state machine corresponding to one of the plurality of schedules; and

executing the program as part of the clinical trial simulation including the plurality of state machines, according to a time queue.

15. (Original) The computer readable medium of claim 14, wherein the receiving step comprises:

receiving trial protocol information that conforms to a structured format; and

receiving trial protocol information that conforms to a trial design language.

16. (Original) The computer readable medium of claim 14, wherein the plurality of schedules comprises a dosing schedule.

17. (Original) The computer readable medium of claim 14, wherein the plurality of schedules comprises an observation schedule.

18. (Canceled)

19. (Previously Presented) A system comprising a microprocessor, a persistent storage area, a volatile storage area and a communication means, the system including an execution area configured to simulate a clinical trial by performing the following steps:

receiving trial protocol information that describes a clinical trial simulation;

arranging the trial protocol information into a plurality of schedules, the plurality of schedules comprising a dosing schedule and an observation schedule;

translating each of the plurality of schedules into a general purpose, high level programming language;

compiling the translated schedules into an executable program, the executable program comprising a plurality of programmable state machines, each state machine corresponding to a discrete one of the plurality of schedules; and

executing the program as part of the clinical trial simulation including the plurality of state machines, according to a time queue.

20. (Previously Presented) The system of claim 1 wherein the translator operates according to a syntax and a structure of the trial protocol.

21. (Previously Presented) The system of claim 20 wherein the protocol parser is configured to determine a syntax and a structure of the trial protocol, to convert the trial protocol into an intermediate format, and to pass the intermediate format to the code generator.

22. (Previously Presented) The method of claim 9 wherein the trial protocol information is arranged into a plurality of schedules according to a syntax and a structure of the trial protocol information.

23. (Previously Presented) The method of claim 22 wherein the trial protocol information is analyzed to determine the syntax and structure.

24. (Previously Presented) The method of claim 14 wherein the trial protocol information is arranged into a plurality of schedules according to a syntax and a structure of the trial protocol information.

25. (Previously Presented) The method of claim 24 wherein the trial protocol information is analyzed to determine the syntax and structure.